

Title (en)
Dielectric filter, duplexer, and communication apparatus incorporating the same

Title (de)
Dielektrisches Filter, Duplexer und Kommunikationsgerät damit

Title (fr)
Filtre diélectrique, duplexeur et appareil de communication le comportant

Publication
EP 1158596 A3 20030709 (EN)

Application
EP 01111071 A 20010508

Priority
JP 2000149980 A 20000522

Abstract (en)
[origin: EP1158596A2] A dielectric filter that can generate many more attenuation poles as well as attenuation poles generated by tap couplings so that arbitrary passing characteristics and attenuation characteristics can be obtained. In this filter, inside a dielectric block (1) there are formed through-holes (2a,2b) having stepped structures in which inner conductors are disposed on the inner surfaces of the holes to capacitively couple resonators (4a,4b). There are also formed lateral holes having conductive films disposed on the inner surfaces of the holes (5a,5b). The lateral holes (5a,5b) are connected to input/output terminals (7a,7b) in predetermined positions of the inner conductors (4a,4b). With this arrangement, attenuation poles are generated by both distributed constant resonator coupling and tap couplings on the low frequency side and high frequency side of a pass band. <IMAGE>

IPC 1-7
H01P 1/205; **H01P 1/213**; **H01P 1/203**

IPC 8 full level
H01P 1/205 (2006.01); **H01P 1/213** (2006.01); **H01P 5/08** (2006.01); **H01P 7/04** (2006.01)

CPC (source: EP KR US)
H01P 1/203 (2013.01 - KR); **H01P 1/2056** (2013.01 - EP US); **H01P 1/2136** (2013.01 - EP US)

Citation (search report)

- [X] EP 0989625 A2 20000329 - MURATA MANUFACTURING CO [JP]
- [X] EP 0961337 A1 19991201 - MATSUSHITA ELECTRIC IND CO LTD [JP]
- [X] FR 2704984 A1 19941110 - FRANCE TELECOM [FR], et al
- [X] US 5629656 A 19970513 - TADA HITOSHI [JP], et al
- [X] US 6008707 A 19991228 - TADA HITOSHI [JP], et al

Designated contracting state (EPC)
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DOCDB simple family (publication)
EP 1158596 A2 20011128; **EP 1158596 A3 20030709**; CN 1185751 C 20050119; CN 1325149 A 20011205; JP 2001332906 A 20011130; KR 100397732 B1 20030913; KR 20010107626 A 20011207; US 2002014931 A1 20020207; US 6549093 B2 20030415

DOCDB simple family (application)
EP 01111071 A 20010508; CN 01119762 A 20010522; JP 2000149980 A 20000522; KR 20010027949 A 20010522; US 86292701 A 20010522